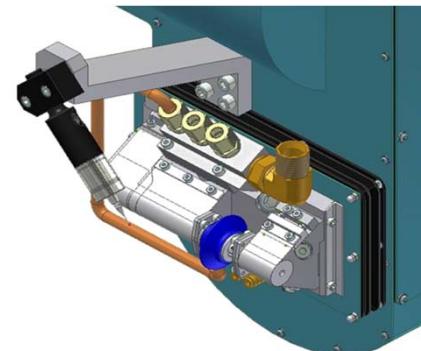
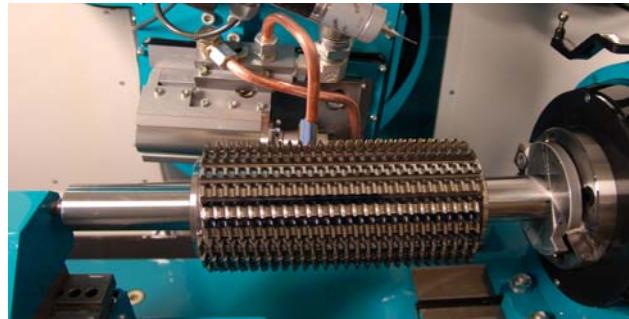


Profiling Involute Spline Gear Hob

A12-030

The hob profile was ground on GEMINI GHP with additional oscillating linear axis. Linear drives allow the usage of high speed machining (HSM) mode, which considerably reduces the grinding time. The cycle time calculation considers to remove 0.4 mm of overmeasure, dressing cycles between roughing and finishing are included (10 infeeds for roughing and 4 infeeds for finishing).

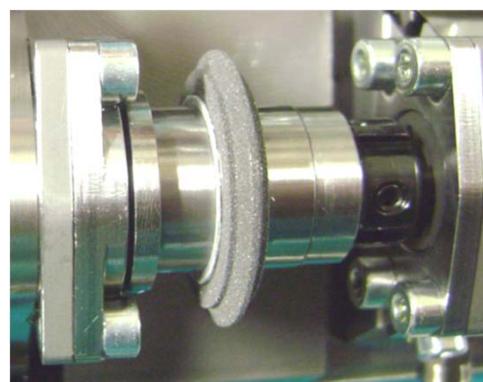
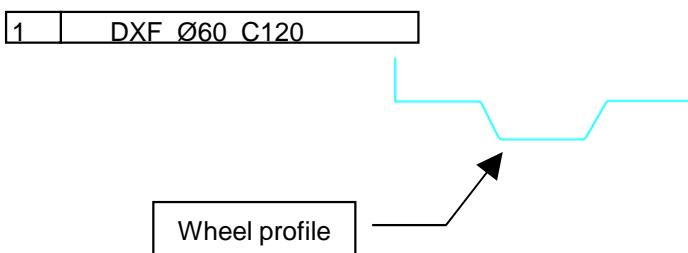


1. Cycletime for Production

Workpiece: Diameter 90 mm, Length 240 mm, Pitch 12.148 Material HSS					
Operations	Probe	Dress	Profiling	Dress	Profiling
Feed [mm/Min]	2000	100	3000	100	3500
Power [kW]		1	1	1	1
Cutting feed [m/s]		32	38	32	38
Used wheels		1	1	1	1
Grinding time [s]	9	28	1778	28	630
Total cycle time	41 Min 13				

The cycle times are indicative. Material to be ground, grinding wheels, coolants can influence the cycle times considerably.

2. Used Grinding Wheels



3. Machine and Software Requirements

Machines: 6 axes CNC grinders : GEMINI GHP

Control: Fanuc 31i

Accessories:

Responsible engineer: OP. 25.1.2010

Coolant: Synthetic Oil, pressure 6 bar

Software: Quinto 5

www.schneeberger.ch

J. SCHNEEBERGER Maschinen AG 4914 Roggwil Switzerland

Subsidiaries in: France, Deutschland, Italia, United States, China